

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014234**Date Inspected:** 20-May-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Guo Yenfei**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Bay 9 and 12**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Christopher D'souza was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China. QA Inspector observed and/or found the following:

Bay 12

QA inspector performed conventional Ultrasonic (UT) Inspection on deck panel tack weld areas. The inspection is preliminary prior to using the phased array (PAUT) testing system to verify indications found with conventional Ultrasonic testing. QA inspector performed UT on deck panel DP3121-001, 5 ribs, 10 welds, 250 total tack welds inspected.

Weld 1 scanned 25 locations with 6 indications.

Weld 2 scanned 25 locations with 2 indications.

Weld 3 scanned 25 locations with 3 indications.

Weld 4 scanned 25 locations with 1 indication.

Weld 5 scanned 25 locations with 1 indication.

Tack weld locations found non-compliant are marked on U-rib and deck plate for ZPMC's reference for repair. See Caltrans U-rib to Deck Panel- Tack Weld Assessment sheets dated 20th May, 2010 for further information on PAUT inspections.

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This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of OBG components previously accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. The QA Inspector observed no rejectable indications at the time of testing. Weld identification numbers were

DP3152-001-171, 172

DP3151-001-169,170

DP3144-001-223,224

This inspector performed In- Process inspections of production welding of deck panels in Bay 9. Welding was being performed on panel DP3125-001. The weld procedure was found to be WPS-B-T-2342-U1-(U-rib)-5. The welding operators were identified as follows:

Weld 1- 059418

Weld 2- 059421

Weld 3- 059416

Weld 4- 201788

Weld 5- 059416

Weld 6- 201788

ZPMC and ABF QC were present during the welding process and identified as Zhu Zhong Jie and Huang Wen Guang respectively. The ZPMC CWI was present during the welding process and identified as Guo Yanfei.

During SAW welding process, the welding parameters were verified by this inspector and were as follows:

Head 3, Weld 1- 69.1 Amps, 30.5 Volts

Head 4, Weld 2- 68.7 Amps, 30.5 Volts

Head 5, Weld 5- 69.0 Amps, 30.8 Volts

Head 6, Weld 6- 68.8 Amps, 30.3 Volts

Head 5, Weld 3- 68.5 Amps, 30.0 Volts

Head 6, Weld 4- 69.0 Amps, 30.0 Volts

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Dsouza,Christopher

Quality Assurance Inspector

Reviewed By: Carreon,Albert

QA Reviewer